**Database Exam Project**

Data: <https://www.kaggle.com/datasets/karkavelrajaj/amazon-sales-dataset>

Amazon sales data which includes reviews and ratings.

**Use Case**

The objective is to create three comprehensive databases that consolidates product, price, category, review, and rating data from Amazon. This database will serve multiple purposes, including performance analysis, customer feedback analysis, and strategic decision-making for product improvement and marketing.

**Functional requirements**

**Data Ingestion:**

* The system should be able to import product data, review data, and rating data from Amazon.

**Data Storage:**

* The system should store product data, including product ID, product name, price and a link to the product.
* It should store review data, including review ID, product ID, user ID, review title and review content.
* It should store rating data, including rating ID, product ID, rating and rating count.

**Data Retrieval:**

* Users should be able to retrieve sales data by product ID, product name, and price.
* Users should be able to retrieve reviews by product ID and username.
* Users should be able to retrieve ratings by product ID and rating.

**Search Functionality:**

* The system should provide search functionality to find products based on keywords in reviews and product descriptions.

**Nonfunctional requirements**

**Performance:**

* Average response time for data retrieval should be less than 1 second.

**Usability:**

* The system should have an intuitive user interface for managing and querying the database.

**Data Integrity:**

* The system should ensure that all transactions are ACID (Atomicity, Consistency, Isolation, Durability) or CAP (Consistency, Availability, Partition Tolerance) compliant.